FIGURE 1A

| ATG | AAG | CCG | TAC | TTC | TGC | CGT | ĢTC | TTT | GTC | TTC | TGC | TTC | СТА | ATC | | 45 |
|----------|----------|----------|----------|-----------------|-----------|------------------|----------|----------|------------------------|----------|----------|----------|----------|------------------------|---|------------------|
| м | К | P | Y | F 5 | С | R | Υ | Ξ_ | 10 | F | <u>c</u> | F | Ţ. | I 15 | | 45 |
| AGA R | CTT L | TTA L | ACA T | GGA G 20 | GAA *E | ATC I | AAT N | GGC G | TCG S 25 | GCC A | GAT D | CAT H | AGG R | ATG M 30 | | 90 |
| TTT F | TCA S | TTT F | CAC H | AAT N 35 | GGA G | G GT G | GTA V | CAG Q | ATT I 40 | TCT S | TGT C | AAA K | TAC Y | CCT P 45 | | 135. |
| GAG E | ACT T | GTC V | CAG Q | CAG Q 50 | TTA L | AAA K | atg M | CGA R | TTG L 55 | TTC F | AGA R | GAG E | AGA R | G AA E 60 | • | 180 |
| GTC V | CTC L | TGC C | GAA E | CTC L 65 | ACC T | aag K | ACC T | AAG K | G GA G 70 | AGC S | GGA G | AAT N | GCG A | GTG V 75 | | 225 |
| TCC S | ATC I | aag K | AAT N | CCA P 80 | atg M | CTC L | TGT C | CTA L | TAT Y 85 | CAT H | CTG L | TCA S | AAC N | AAC N 90 | | 270 |
| AGC S | gtc V | TCT S | TTT F | TTC F 95 | CTA L | AAC N | AAC N | CCA P | GAC D 100 | AGC S | TCC S | CAG Q | GGA G | AGC S 105 | | 315 |
| TAT | TAC Y | TTC F | TGC C | AGC S 110 | CTG L | TCC S | ATT I | TTT F | GAC D 115 | CCA P | CCT P | CCT P | TTT F | CAA Q 120 | | 360 |
| GAA E | AGG R | AAC N | CTT L | AGT S 125 | GGA G | | TAT Y | TTG L | CAT H 130 | ATT I | TAT Y | gaa e | TCC S | CAG Q 135 | | 405 |
| CTC | TGC C | TGC C | CAG Q | CTG L 140 | aag K | CTC L | TGG W | CTA L | CCC P 145 | GTA V | GGG G | TGT C | GCA A | GCT A 150 | | 450 _. |
| TTC F | GTT V | GTG V | | CTC | CTT L | | | TGC C | ATA I | CTT L | ATC I | ATC I | TGG W | TTT F | | 495 |
| | | | | 155 | | | | | 160 | | | | | 165 | | |
| TCA S | | aag K | | | | | | | CAT H 175 | | CCT P | AAT N | agt s | GAA E 180 | | 540 |
| TAC Y | | TTC F | atg M | | GCA A | | | | | AAA K | | | AGA R | CTT L 195 | | 585 |
| GCA A | | gtg V | ACC T | TCA S 200 | | ر ا | | | | | | - | | | | 600 |



2/33

FIGURE 1B

| mCRP1 mCD28 Consensus | MKPYFCRVFV MT M | | ALMESVAN | これがアナナカルへのも | | 39 38 |
|-----------------------------|-----------------------------------|------------|------------|---------------|------------|------------|
| mCRP1 mCD28 Consensus | ISCKYPETV- LSCRYSYNLL .SC.Y | AKEFRASLYK | GVNSDVEVCV | CNICNIETIVADA | CD C111 | 84 88 |
| mCRP1 mCD28 Consensus | YHLSNNSVSF GDFDNETVTF NV.F | RLWNLHVNHT | DIYFCKIEFM | YPPPYLDNER | SNOTTTHIEF | 133 138 |
| mCRP1 mCD28 Consensus | SQLCCQL KHLCHTQSSP LC | KLFWALVVVA | GVLFCYGLLV | TVALCVIWTN | SERNELLOVE | 172 188 |
| mCRP1 mCD28 Consensus | SVH-DPNSEY TMNMTPRRPG | | PARDFAAYRP | | | 200 218 |

3/33

FIGURE 2A

| 3 TC | C3.C | C.T. | | | | | | | | | | | | | |
|----------|----------|----------|----------|------------------|----------|----------|-----------|----------|-----------------|----------|----------|------------------|----------|-----------------|-----|
| M | Q | L | AAG K | TGT C 5 | 5 CCC | TGT | TTT F | GTG V | TCC S 10 | TTG L | GGA G | ACC T | AGG R | CAG Q 15 | 45 |
| CCT P | GTT V | TGG W | AAG K | AAG K 20 | CTC L | CAT H | GTT V | TCT S | AGC S 25 | GGG G | TTC F | TTT F | TCT S | GGT G 30 | 90 |
| CTT L | GGT G | CTG L | TTC F | TTG L 35 | CTG L | CTG L | TTG L | AGC S | AGC S 40 | CTC L | TGT C | GCT A | GCC A | TCT S 45 | 135 |
| | GAG E | ACT T | GAA E | GTC V 50 | GGT G | GCA A | atg M | gtg V | GGC G 55 | AGC S | AAT N | gtg V | gtg V | CTC L 60 | 180 |
| AGC S | TGC C | ATT I | GAC D | CCC P 65 | CAC H | AGA R | CGC R | CAT H | TTC F 70 | AAC N | TTG L | AGT S | GGT G | CTG L 75 | 225 |
| TAT Y | GTC V | TAT Y | TGG W | CAA Q 80 | ATC I | GAA E | AAC N | CCA P | GAA E 85 | GTT V | TCG S | g tg V | ACT T | TAC Y 90 | 270 |
| TAC Y | CTG L | CCT P | TAC Y | AAG K 95 | TCT S | CCA P | GGG G | ATC I | AAT N 100 | gtg V | GAC D | AGT S | TCC S | TAC Y 105 | 315 |
| AAG K | AAC N | AGG R | GGC G | CAT H 110 | CTG L | TCC S | CTG L | GAC D | TCC S 115 | atg M | aag K | CAG Q | ggt g | AAC N 120 | 360 |
| TTC F | TCT S | CTG L | TAC Y | CTG L 125 | aag K | AAT N | gtc V | ACC T | CCT P 130 | CAG Q | GAT D | ACC T | CAG Q | GAG E 135 | 405 |
| TTC F | ACA T | TGC C | CGG R | GTA V 140 | TTT F | atg M | aat N | ACA T | GCC A 145 | ACA T | GAG E | TTA L | gtc V | AAG K 150 | 450 |
| ATC I | TTG L | gaa E | GAG E | GTG V 155 | GTC V | AGG R | CTG L· | CGT R | GTG V 160 | GCA A | GCA A | aac N | TTC F | AGT S 165 | 495 |
| ACA T | CCT P | GTC V | ATC I | AGC S 170 | ACC T | TCT S | gat D | AGC S | TCC S 175 | aac N | CCG P | GGC G | CAG Q | GAA E 180 | 540 |
| CGT R | ACC T | | ACC T | TGC C 1,85 | | TCC S | | | GGC G 190 | | CCA P | | P CCC | AAC N 195 | 585 |
| _ | TAT Y | TGG W | ATC I | AAC N 200 | | | GAC D | AAT N | AGC S 205 | | ATA I | GAC D | ACG T | GCT A 210 | 630 |
| _ | | | AAC N | ACT T 215 | | | | | | | GGC G | | TAT Y | GAT D 225 | 675 |
| GTA V | ATC I | AGC S | ACA T | TTA L 230 | AGG R | CTC L | CCT P | tgg W | ACA T 235 | | CGT R | | GAT D | GTT V 240 | 720 |

09/890729 PCT/US00/01871

4/33

FIGURE 2A (Con't)

| L CTG | TGC | TGC | GTA V | GAG E 245 | AAT N | GTG V | GCT A | CTC L | CAC H 250 | CAG Q | AAC N | ATC I | ACT T | AGC S 255 | 765 |
|----------|----------|----------|----------|-----------------|----------|-----------------|----------|----------|-----------------|----------|----------|----------|----------|-----------------|-----|
| ATT I | AGC S | CAG Q | GCA A | GAA E 260 | agt s | TTC F | ACT T | GGA G | AAT N 265 | AAC N | ACA T | AAG K | AAC N | CCA P 270 | 810 |
| CAG Q | GAA E | ACC T | CAC H | AAT N 275 | AAT N | GAG E | TTA L | AAA K | GTC V 280 | CTT L | GTC V | P CCC | GTC V | CTT L 285 | 855 |
| GCT A | GTA V | CTG L | GCG A | GCA A 290 | GCG A | GCA A | TTC F | GTT V | TCC S 295 | TTC F | ATC I | ATA I | TAC Y | AGA R 300 | 900 |
| CGC R | ACG T | CGT R | CCC P | CAC H 305 | CGA R | AGC S | TAT Y | ACA T | GGA G 310 | CCC | aag K | | GTA V | CAG Q 315 | 945 |
| CTT L | GAA E | CTT L | ACA T | GAC D 320 | CAC H | GCC A 322 | | | | | | | | | 966 |



5/33

FIGURE 2B

| mB7RP1 mCD80 Consensus | | LGTRQPVWKK LMQDTPL LP | LKFPCPRIT- | T T EXT T TOT | COTICCOLTO | 49 41 |
|------------------------------|---------------|--------------------------------------|------------|---------------|-------------------------------|------------|
| mB7RP1 mCD80 Consensus | TOYO AYDY A L | LSCIDPHRRH LPC-RYNSPH L.CH | EDESEDRIYW | OKHDK2V1 | YYLPYKSPGI LSVIAGKL | 99 85 |
| mB7RP1 mCD80 Consensus | KVWPEYKNR- | HLSLDSMKQG TLYDNT | TYSLIILGLV | LSDRGTYSCV | VFMNTATELV VQKKERGTYE V | 149 130 |
| mB7RP1 mCD80 Consensus | VKHLALVKLS | VAANFSTPVI IKADFSTPNI A.FSTP.I | TESGNPSADT | KRI-TCFASG | GEPKPPFCWI. | 199 179 |
| mB7RP1 mCD80 Consensus | ENGRELPGIN | TALQNNTVYL TTISQDPESE T | LYTISSOLDF | NTTRNHTIKC | LIKYGDAHVS | 248 229 |
| mB7RP1 mCD80 Consensus | EDFTWEKPPE | AESFTGNNTK DPPDSKNTLV | LFGAGFGAVI | TVVVIVVIIK | CFCKHRSCFR | 297 279 |
| mB7RP1 mCD80 Consensus | RNEASRETNN | SYT-GPKTVQ SLTFGPEEAL S.T.GPJ. | AEQTVFL | | | 322 306 |

09/890729 PCT/US00/01871

6/33

FIGURE 3A

| ATG M | CGG R | CTG L | GGC G | AGT S 5 | CCT P | GGA G | CTG L | CTC L | TTC F | CTG L | CTC L | TTC | AGC S | <u>s</u> | 45 |
|------------------|----------|-------------------|-----------|-----------------|-----------|------------------|------------------|-----------|-----------------|----------|----------|-----------|------------------|-----------------|-----|
| CTT L_ | CGA R | GCT A | GAT *D | ACT *T 20 | CAG *Q | GAG *E | AAG K | GAA *E | GTC V 25 | AGA R | | ATG *M | GTA V | GGC G 30 | 90 |
| AGC S | GAC D | GTG V | GAG E | CTC L 35 | AGC S | TGC C | GCT A | TGC C | CCT P 40 | gaa E | GGA G | AGC S | CGT R | TTT F 45 | 135 |
| GAT D | TTA L | AAT N | GAT D | GTT V 50 | TAC Y | GTA V | TAT Y | TGG W | CAA Q 55 | ACC T | AGT S | GAG E | TCG S | AAA K 60 | 180 |
| ACC T | gtg V | g t g V | ACC T | TAC Y 65 | CAC H | ATC I | CCA P | CAG Q | AAC N 70 | AGC S | TCC S | TTG L | GAA E | AAC N 75 | 225 |
| gtg V | GAC D | AGC S | CGC R | TAC Y 80 | CGG R | AAC N | CGA R | GCC A | CTG L 85 | atg M | TCA S | CCG P | GCC A | GGC G 90 | 270 |
| ATG M | CTG L | CGG R | GGC G | GAC D 95 | TTC F | TCC S | CTG L | CGC R | TTG L 100 | TTC F | AAC N | GTC V | ACC T | CCC P 105 | 315 |
| CAG Q | GAC D | | CAG Q | AAG K 110 | TTT F | CAC H | TGC C | CTG L | GTG V 115 | TTG L | AGC S | CAA Q | TCC S | CTG L 120 | 360 |
| G GA G | TTC F | CAG Q | GAG E | GTT V 125 | TTG L | AGC S | gtt V | GAG E | GTT V 130 | ACA T | CTG L | CAT H | g tg V | GCA A 135 | 405 |
| GCA A | AAC N | TTC F | AGC S | GTG V 140 | p CCC | G TC V | g tc V | AGC S | GCC A 145 | P CCC | CAC H | AGC S | CCC P | TCC S 150 | 450 |
| CAG Q | GAT D | GAG E | CTC L | ACC T 155 | TTC F | ACG T | TGT C | ACA T | TCC S 160 | ATA I | AAC N | GGC G | TAC Y | CCC P 165 | 495 |
| AGG R | CCC P | AAC N | gtg V | TAC Y 170 | TGG W | atc I | AAT N | aag K | ACG T 175 | GAC D | AAC N | AGC S | CTG L | CTG L 180 | 540 |
| GAC D | CAG Q | GCT A | CTG L | CAG Q 185 | AAT N | GAC D | ACC T | GTC V | TTC F 190 | | AAC N | atg M | CGG R | GGC G 195 | 585 |
| _ | TAT Y | GAC D | gtg V | GTC V 200 | AGC S | | | AGG R | ATC I 205 | | CGG R | | CCC P | AGC S 210 | 630 |
| gtg V | | ATT I | GGC G | TGC C 215 | | | | AAC N | | CTT L | | | CAG Q | AAC N 225 | 675 |
| CTG L | | gtc V | GGC G | AGC S 230 | | | GGA G | | GAC D 235 | I | GGA G | | AGA R | GAC D 240 | 720 |

7/33

FIGURE 3A (Con't)

| AAG K | ATC | ACA T | GAG E | AAT N 245 | CCA P | GTC V | AGT S | ACC T | GGC G 250 | GAG E | AAA K | AAC N | GCG A | GCC A 255 | 765 |
|----------|----------|-----------------|----------|-----------------|----------|----------|----------|----------|-----------------|----------|----------|----------|----------|------------------------|-----|
| ACG T | TGG W | AGC S | ATC L | CTG L 250 | GCT A | GTC V | CTG L | TGC C | CTG L 265 | CTT L | GTG V | GTC V | GTG V | GCG <u>A</u> 270 | 810 |
| GTG V | GCC A | ATA I | GGC G | TGG W 275 | gtg V | TGC C | AGG R | GAC D | CGA R 280 | TGC C | CTC L | CAA Q | CAC H | | 855 |
| TAT Y | GCA A | GGT G 288 | | | | | | | | | | | | | 864 |

8/33

FIGURE 3B

| mB7RP1 Consensus | | DVELSCACPE NVVLSCIDPH .V.LSCP. | RRHANLSGIV | | | 50 50 |
|-------------------------------|--------------------------|----------------------------------------|--------------------------|--------------|--------------|------------|
| hB7RP1 mB7RP1 Consensus | SLENVDSRYR PGINVDSSYK | NRALMSPAGM NRGHLSLDSM NRSM | LRGDFSLRLF KOGNFSLYLK | NVTPQDEQKF | HCLVLSQ-SL | 99 100 |
| hB7RP1 mB7RP1 Consensus | ELVKILEEVV | TLHVAANFSV RLRVAANFST .L.VAANFS. | PVISTSDSSN | PGOERTYTCM | CENTENDEDNIT | 143 150 |
| hB7RP1 mB7RP1 Consensus | YWINTIDNSL | LDQALQNDTV IDTALQNNTV .D.ALQN.TV | YLNKLGLYDV | ISTIRI, PWTS | PCDVI COVEN | 198 200 |
| hB7RP1 mB7RP1 Consensus | VALHQNITSI | SQTGNDIGER SQAESFTGNN SQG | TKNPOETHNN | ELKVI.VPV | T.AUT.AAAAEU | 248 248 |
| hB7RP1 mB7RP1 Consensus | | R-PHRSYTGP | KTVQLELTDH | A | | 257 276 |

Figure 4A

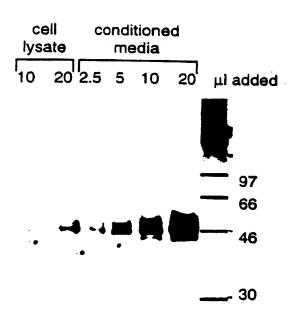
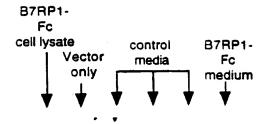
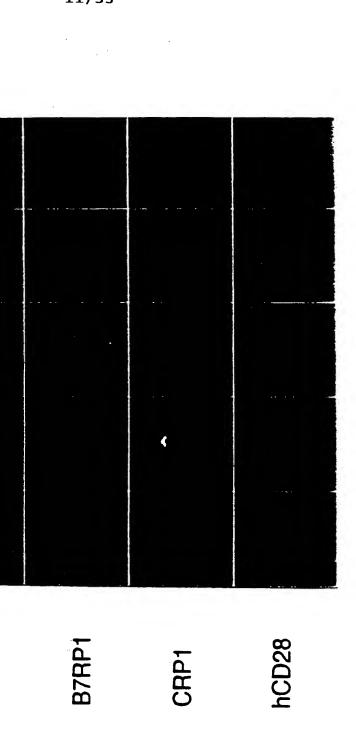


Figure 4B







Cells

Fc fusion proteins

WO 00/46240

B7RP1 Fc control

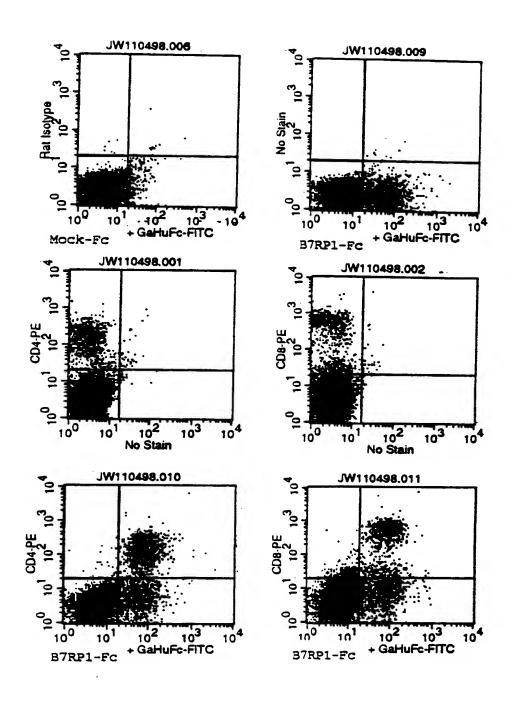
CTLA-4

B7.2

CRP1

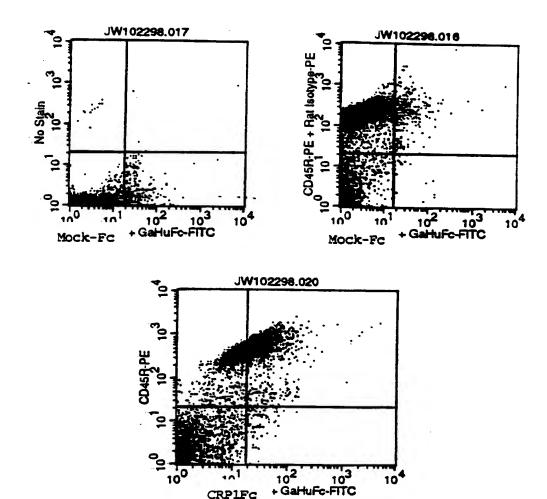
Parental

Figure 6

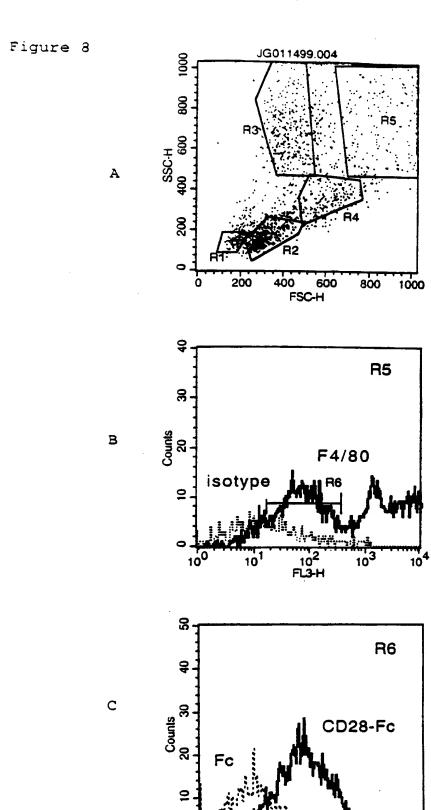


THE HUAT STREET WO 00/46240

Figure 7



10² FL1-H



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15/33

FIGURE 9

Con A stimulation of T-cells regulated by B7RP1-Fc fusion protein

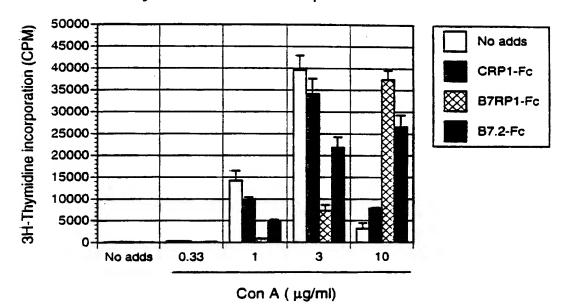


Figure 10

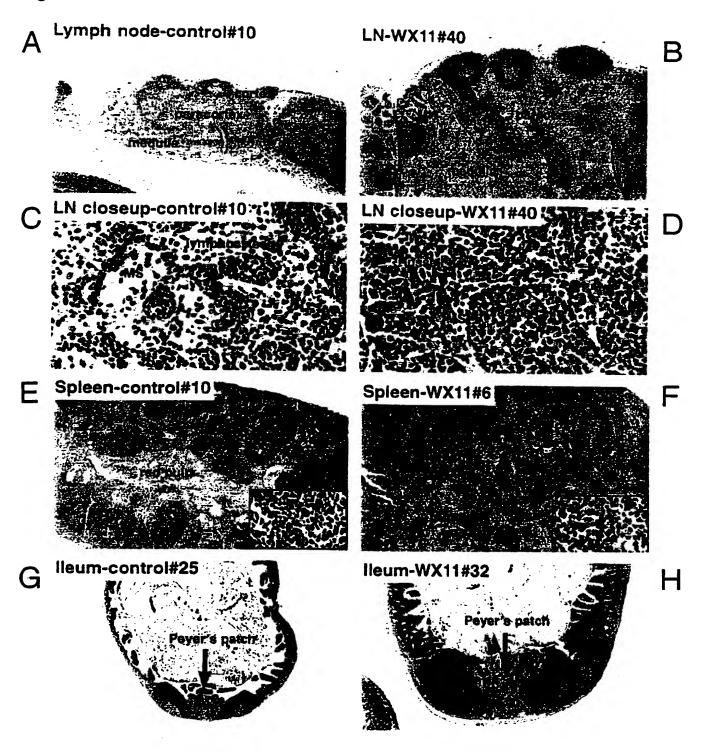
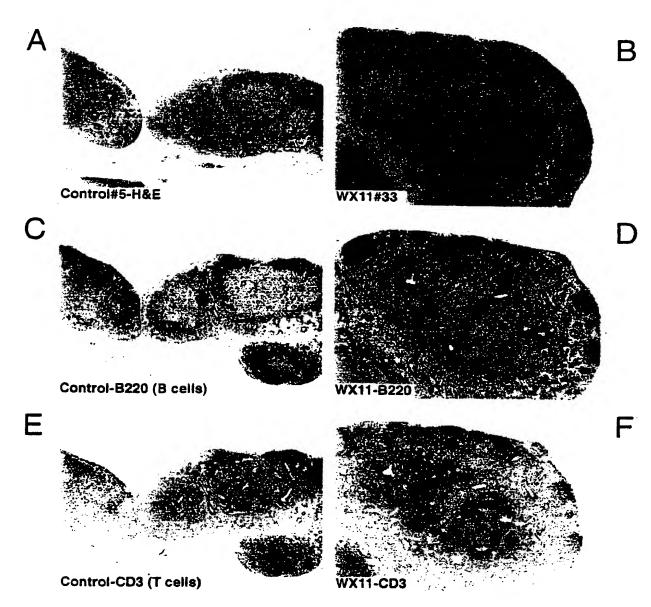


Figure 11



18/33

Figure 12A.

| 9 | | GCTGGTACGCCTGCAGGTACCCCTCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTTCCCCCAATTCCCCAATTTCCCCCAATTCCCCCAATTCCCCCAATTCCCCAATTCCCCAATTCCCCCAATTCCCCAATTCCCCCAATTCCCCCAATTCCCCAATTCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCAATTCCCCCAATTCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCAATTCCCCCAATTCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCCAATTCCCCAATTCCCCAATTCCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCCAATTCCCAATTCCAATTCCCAATTCCCCAATTCCCCAATTCCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATTCCAATT | | | | | | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------|---------------------|--|--|--|--|--|--|--|--|--|--|
| GCTGGTACGCCTGCAGGTACCGGTCCGGAATTCCCGGGTCGACCCACGCGTCCGCCCACGCG TCCGCGGGAGCGCAGTTAGAGCCGATCTCCCGCGCCCCGAGGTTGCTCCTCTCCGAGGTCTC CCGCGGCCCAAGTTCTCCGCGCCCCGAGGTCTCCGCGGCCCGAGGT CTCCGCCCGCACCC | | | | | | | | | | | | | | | |
| ATG CGG CTG GGC M R L G | S P G 5 | A CTG CTC L L | | | AGC 45 S 15 | | | | | | | | | | |
| CTT CGA GCT GAT | ACT CAG GAG *T *Q *E 20 | G AAG GAA K *E | | GCG ATG GTA A *M V | GGC 90 G 30 | | | | | | | | | | |
| AGC GAC GTG GAC S D V E | CTC AGC TGG L S C 35 | GCT TGC A C | CCT GAA C P E C 40 | | TTT 135 F 45 | | | | | | | | | | |
| GAT TTA AAT GAT D L N D | C GTT TAC GTA V Y V 50 | Y W | CAA ACC A Q T S 55 | AGT GAG TCG S E S | AAA 180 'K 60 | | | | | | | | | | |
| ACC GTG GTG ACC | TAC CAC ATO Y H I 65 | P Q | AAC AGC T N S S 70 | | AAC 225 N 75 | | | | | | | | | | |
| GTG GAC AGC CGC V D S R | TAC CGG AAC Y R N 80 | R A | CTG ATG T L M S 85 | | GGC 270 G 90 | | | | | | | | | | |
| ATG CTG CGG GGC M L R G | GAC TTC TCC D F S 95 | L R | TTG TTC A L F N 100 | AC GTC ACC | CCC 315 P 105 | | | | | | | | | | |
| CAG GAC GAG CAG Q D E Q | AAG TTT CAC K F H 110 | C L | GTG TTG A V L S 115 | | CTG 360 L 120 | | | | | | | | | | |
| GGA TTC CAG GAG G F Q E | GTT TTG AGO V L S 125 | VE. | GTT ACA C V T L 130 | CTG CAT GTG | GCA 405 A 135 | | | | | | | | | | |
| GCA AAC TTC AGC A N F S | GTG CCC GTC V P V 140 | vs. | GCC CCC C A P H 145 | | TCC 450 S 150 | | | | | | | | | | |
| CAG GAT GAG CTC Q D E L | ACC TTC ACC T F T 155 | C T | TCC ATA A S I N 160 | AC GGC TAC I G Y | CCC 495 P 165 | | | | | | | | | | |
| AGG CCC AAC GTG R P N V | TAC TGG ATC Y W I 170 | N K | | AC AGC CTG S L | CTG 540 L 180 | | | | | | | | | | |
| GAC CAG GCT CTG D Q A L | CAG AAT GAC Q N D 185 | T V | TTC TTG A F L N 190 | | GGC 585 G 195 | | | | | | | | | | |
| TTG TAT GAC GTG L Y D V | | L R | | GG ACC CCC | AGC 630 S 210 | | | | | | | | | | |
| GTG AAC ATT GGC V N I G | TGC TGC ATA C C I 215 | E N | GTG CTT C V L L 220 | | AAC 675 N 225 | | | | | | | | | | |

| CTG L | ACT T | GTC V | GGC G | AGC S 230 | CAG Q | ACA T | GGA G | AAT N | GAC D 235 | ATC I | GGA G | GAG E | AGA R | GAC D 240 | 720 |
|----------|-----------------|-------------|----------|-----------------|----------|----------|----------|----------|-----------------|----------|----------|----------|----------|-------------------|-------------|
| AAG K | ATC I | ACA T | GAG E | AAT N 245 | CCA P | GTC V | AGT S | ACC T | GGC G 250 | GAG E | AAA K | AAC N | GCG A | GCC A 255 | 765 |
| ACG T | TGG W | AGC S | ATC I | CTG L 260 | GCT A | GTC V | CTG L | TGC C | CTG L 265 | CTT L | GTG V | GTC V | GTG V | GCG A 270 | 810 |
| GTG V | GCC A | ATA I | GGC G | TGG W 275 | GTG V | TGC C | AGG R | GAC D | CGA R 280 | TGC C | CTC L | CAA Q | CAC H | AGC S 285 | 855 |
| TAT Y | GCA A | ggt G | GCC A | TGG W | GCT A | gtg V | AGT S | CCG P | GAG E | ACA T | GAG E | CTC L | ACT T | GGC G 300 | 900 |
| CAC H | GTT V 302 | TGA STOP | , | | | | | | | | | | | | 909 |
| TGGC | AGCI | 'TGAC | CATO | GACT | CCCA | GACI | GCAC | GGGA | GCAC | TTGG | GGC | AGCCC | CCAC | GCCAGG GAAGGAC | 971 1033 |

| Figure 12B. | | | | | | |
|-----------------------------|------------|-------------------------------------|----------------------------------------|------------|--------------|-------------------|
| human mouse Consensus | MQLKCPCFVS | LGTRQPVWKK | LHVSSGFFSG | LGLFLLLLSS | TCAASAETEU | 25 50 50 |
| human mouse Consensus | GAMVGSNVVL | SCIDPHRRHF | DLNDVYVYWQ NLSGLYVYWQ .LYVYWQ | TENDEUCURY | VI DVVCDCTN | 75 100 100 |
| human mouse Consensus | VDSSYKNRGH | LSLDSMKQGN | FSLRLFNVTP FSLYLKNVTP FSL.L.NVTP | ODTOFFTCRV | EMNITATELLIK | 124 150 150 |
| human mouse Consensus | ILEEVVRLRV | AANFSTPVIS | APHSPSQ-DE TSDSSNPGQE SE | RTYTCMSKNG | YPEPNI.YWIN | 173 200 200 |
| human mouse Consensus | TTDNSLIDTA | LQNNTVYLNK | RGLYDVVSVL LGLYDVISTL .GLYDV.S.L | RLPWTSRGDV | LCCVENVALH | 223 250 250 |
| human mouse Consensus | QNITSISQAE | SFTGNNTKNP | ENPVSTGEKN QETHNNELKV K. | LVPVLAVL | AAAAFVSFII | 273 298 300 |
| human mouse Consensus | YRRTR-PH | HSYAGAWAVS RSYTGPKTVQ .SY.GV. | LELTDHA | | | 302 322 329 |

21/33

Figure 13A

| AACAATTTCACACAGGAAACAGCTATGACCATGATTACGCCAAGCTCTAATACGA CTCACTATAGGGAAAGCTGGTACGCCTGCAGGTACCGGTCCGGAATTCCCGGGTC GACCCACGCGTCCGTGAACACTGAACGCGAGGACTGTTAACTGTTTCTGGCAAAC | | | | | | | | | | | | | | -111 -56 -1 | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|-----------------|------------------|----------|----------|-----------|------------------|------------------------|----------|----------|-----------|----------------|--------------------------|------------|
| ATG M | AAG K | | | | TGG W | TAT Y | TTC F | TTT F | | TTC F | | | CGC R | ATT 45 <u>I</u> 15 | 5 |
| | GTT V | TTA L | <u>T</u> * | GGA G * 20 | | | AAT N | gg t g | TCT S 25 | GCC A | AAT N | TAT Y | GAG E | ATG M 30 | 90 |
| TTT F | ATA I | | | AAC N 35 | | GGT G | GTA V | CAA Q | ATT I 40 | TTA L | TGC C | AAA K | TAT Y | CCT P 45 | 135 |
| GAC D | ATT I | | | CAA Q 50 | TTT F | AAA K | atg M | CAG Q | TTG L 55 | CTG L | AAA K | GGG G | GGG G | CAA Q 60 | 180 |
| ATA I | CTC L | | GAT D | CTC L 65 | ACT T | aag K | ACA T | AAA K | GGA G 70 | AGT S | GGA G | AAC N | ACA T | GTG V 75 | 225 |
| TCC S | ATT I | AAG K | AGT S | CTG L 80 | AAA K | TTC F | TGC C | CAT H | TCT S 85 | CAG Q | TTA L | TCC S | AAC N | AAC N 90 | 270 |
| AGT S | GTC V | TCT S | TTT F | TTT F 95 | CTA L | TAC Y | AAC N | TTG L | GAC D 100 | CAT H | TCT S | CAT H | GCC A | AAC N 105 | 315 |
| TAT Y | TAC Y | TTC F | TGC C | AAC N 110 | CTA L | TCA S | ATT I | TTT F | GAT D 115 | CCT P | CCT P | CCT P | TTT F | AAA K 120 | 360 |
| GTA V | ACT T | CTT L | ACA T | GGA G 125 | GGA G | TAT Y | TTG L | CAT H | ATT I 130 | TAT Y | GAA E | TCA S | CAA Q | CTT L 135 | 405 |
| TGT C | TGC C | CAG Q | CTG L | AAG K 140 | <u>F</u> | TGG W | TTA L | CCC P | АТА <u>I</u> 145 | <u> </u> | TGT C | GCA A | GCC A | TTT F 150 | 450 |
| GTT V_ | GTA V | GTC V | TGC C | ATT I 155 | L | GGA G | TGC | ATA I | CTT L 160 | | TGT C | TGG W | CTT L | ACA T 165 | 495 |
| AAZ K | A AAG K | AAG K | TAT Y | TCA S 170 | S | AGT S | 'GTG V | CAC H | GAC D 175 | E | AAC N | GGT G | GAA E | TAC Y 180 | 540 |
| AT(| TTC F | ATG M | AGA R | GCA A 185 | V | AAC N | ACA T | A GCC | XAAA K 190 | K | TCT S | 'AGA R | L L | ACA T 195 | 585 |
| GA' D | r GTC V | ACC T | CTA L 199 | STO | | | | | | | | | | | 600 |
| TA' | TGGA/ TGCA/ | ACTCI AGATI | GGCI | ACCCA | AGGC# | TGAI | AGCA(| CGTT(GGAG/ | GCC AGTC | GAC | TCC? | CAAC | CTTG/ ATAC/ | A A | 655 710 |

| TCTTCTGCTGGTGTTTTGTTCAATCTGGAAGAATGACTGTATCAGTCAATGGGGA TTTTAACAGACTGCCTTGGTACTGCCGAGTCCTCTCAAAACAACACCCCTCTTGC AACCAGCTTTGGAGAAAGCCCAGCTCCTGTGTGCTCACTGGGAGTGGAATCCCTG TCTCCACATCTGCTCCTAGCAGTGCATCAGCCAGTAAAACAAAC | 765 820 875 930 985 1040 1095 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| TOOTGAACCCAGITGACCAITTACAAGACTTTAGATGCTTTCTTGTGCC | 1205 |

| Figure 13B | | |
|------------|-----------------------------------------------------|-----|
| hCRP1 | MKSGLWYFFLFCLRIKVLTGEINGSANYEMFIFHNGGVQILCKYPDIVQQ | 50 |
| mCRP1 | | 50 |
| hCRP1 | FKMOLLKGGOILCDLTKTKGSGNTVSIKSLKFCHSQLSNNSVSFFLYNLD | 100 |
| mCRP1 | . : :: . | 100 |
| hCRP1 | HSHANYYFCNLSIFDPPPFKV.TLTGGYLHIYESQLCCQLKFWLPIGCAA | 149 |
| mCRP1 | . . . | 150 |
| hCRP1 | FVVVCILGCILICWLTKKKYSSSVHDPNGEYMFMRAVNTAKKSRLTDVTL | 199 |
| mCRP1 | FVVVLLFGCILITWFSKKKYGSSVHDPNSFYMFMAAJAMTNYKERIACATE | 200 |

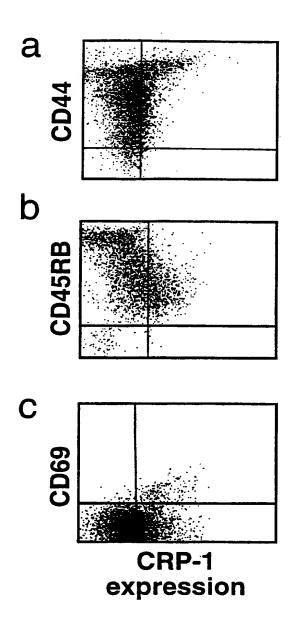


Figure 14

09/890-729
 PCT/US00/01871

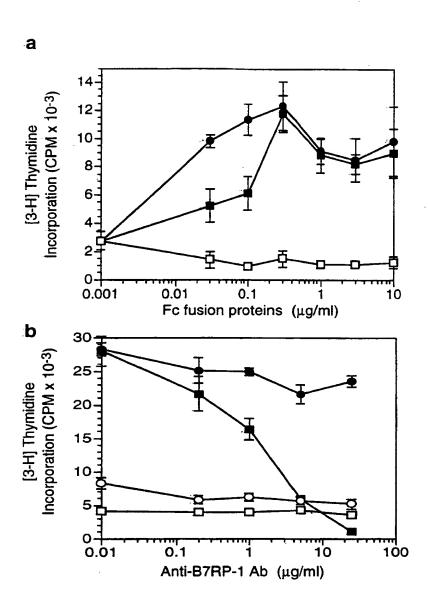
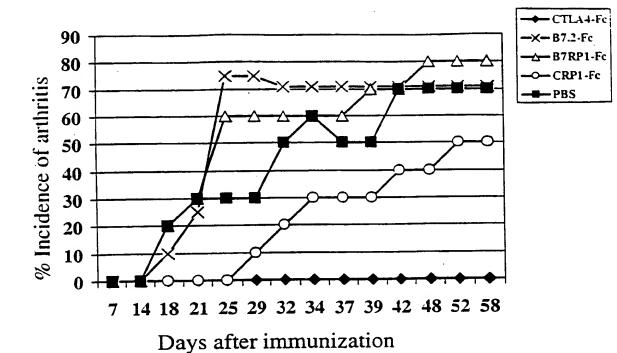


Figure 15

Α.



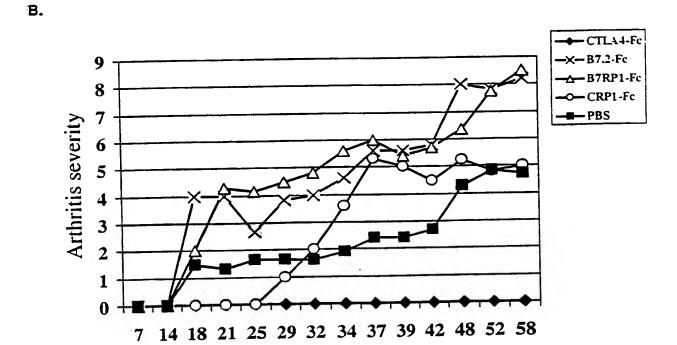


Figure 16

Days after immunization

Figure 20

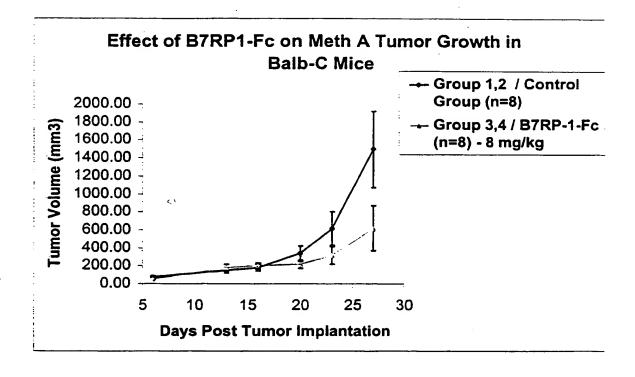
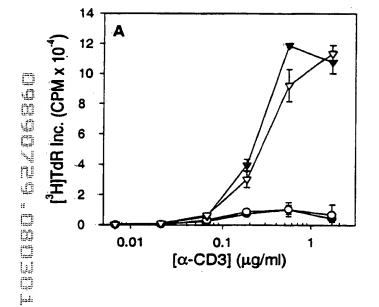


Figure 21A/B.



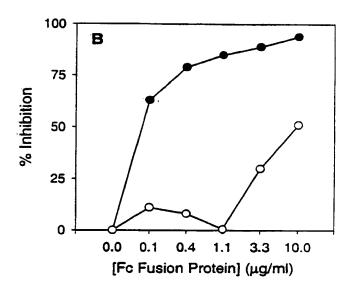


Figure 21C.

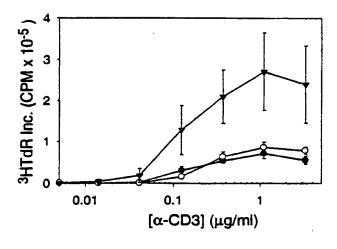
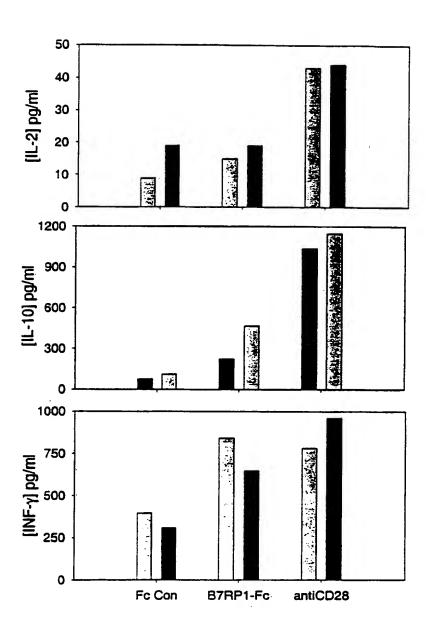
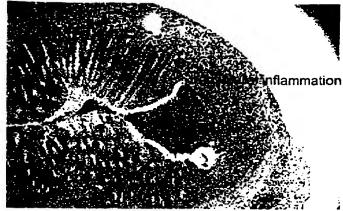


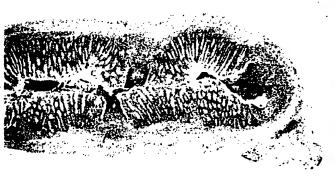
Figure 21D



PCT/US 00 '01871



B. Mouse#111F:Prox. colon 40X



C. Mouse#111F: Prox. colon 20X



D. Mouse#111F: closeup of mucosa 100X



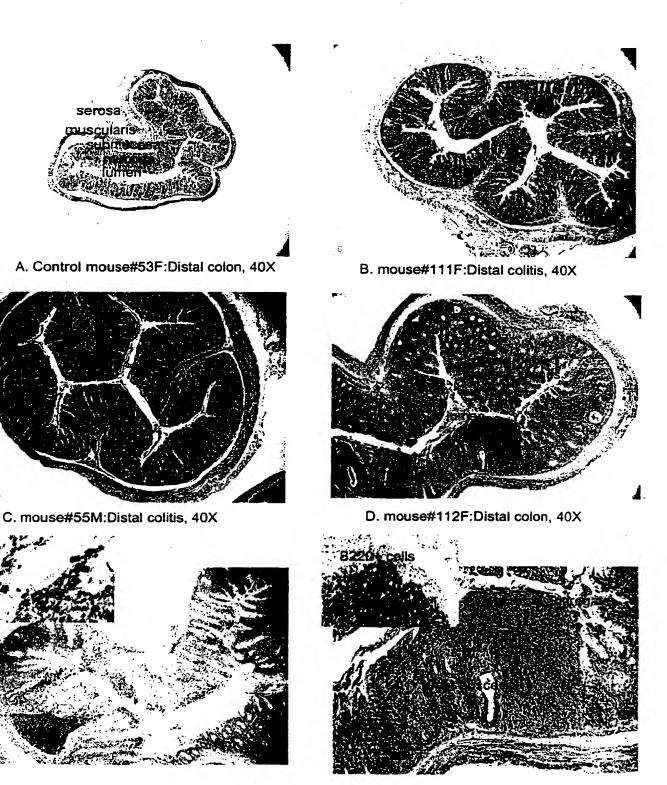
E. Mouse#112F: Giant cell, submucosa



F. Mouse#112F:epithelioid macrophages

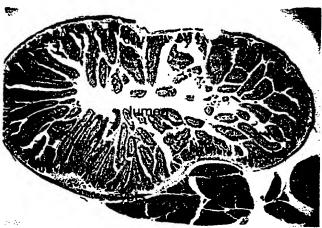
Figure 17

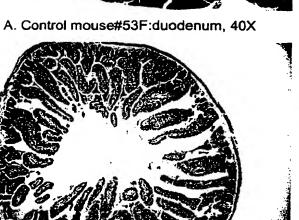
N.



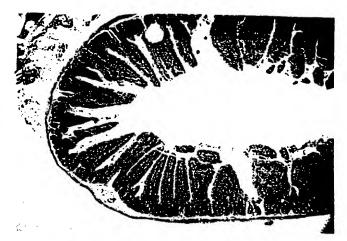
E. mouse#112:CD3+ T-cells, 40X

F. mouse#112:closeup, 100X

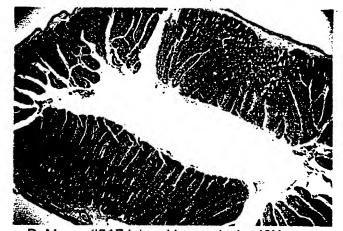




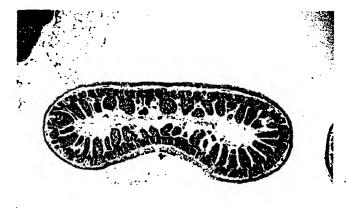
C. Control mouse#53F:jejunum, 40X



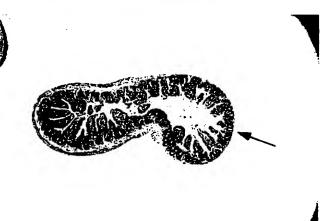
B. Mouse#51F:duodenum, 40X



D. Mouse#51F:jejunal hyperplasia, 40X



E. Control mouse#53F:ileum, 40X



F. Mouse#231M:lleal atrophy, 40X

Figure 19